

#### ABSTRACT OF THE DISCLOSURE

A process for producing a solid-state imaging device which includes the steps of forming a light-receiving portion of a pixel in a surface region on the substrate, forming above the light receiving portion an inter-layer dielectric having a depression in its surface, forming on the inter-layer dielectric a light transmitting film having in its surface a concave conforming to the depression, forming at the position that covers the concave on the light transmitting film a mask layer with a convexly curved surface, and etching the mask layer and the light transmitting film all together, thereby making the light transmitting film into a shape of convex lens with an upwardly curved surface.